

SEVERE LOCAL HAIL AND WIND STORMS, NOVEMBER, 1924

(The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the Annual Report of the Chief of Bureau)

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Madison, Wis.....	6	9:53-9:58 p. m.	3,520	-----	\$200-\$300	Heavy hail.....	Damage principally to greenhouses.....	Official, U. S. Weather Bureau.
Walla Walla, Wash., and vicinity.	7	-----	-----	-----	-----	Wind.....	Some damage to poles, wires and trees in the city and adjacent country.	Do.
Fort Wayne, Ind.....	7	-----	-----	-----	-----	High wind.....	Trees and power lines damaged.....	Do.
Alta, Iowa.....	11	7 a. m.	-----	-----	-----	Heavy hail.....	Very light damage.....	Do.
Mt. Pleasant, Iowa.....	11	Noon	-----	-----	-----	do.....	No appreciable damage.....	Do.
Keokuk, Iowa.....	11	12:30 p. m.	-----	-----	15,000	Hail.....	Window glass broken.....	Do.
Macoupin County, Ill. (northwest part of).	11	-----	-----	-----	-----	Small tornado.....	Farm property damaged. One person injured.....	Do.
Birch Tree, Mo.....	11	-----	-----	-----	-----	Tornadoic wind.....	Considerable damage, character of which was not reported.	Do.
Seymour, Mo.....	11	-----	-----	-----	-----	Tornadoic wind with hail.	Minor damage reported.....	Do.
New England.....	17	-----	-----	-----	-----	High wind and cold wave.	Shipping tied up; trees, signs, and awnings damaged.	Do.
North Head, Wash.....	20	1:30 a. m.	-----	-----	-----	Thunderstorm.....	Communication lines out of commission.....	Do.
Seattle, Wash.....	21	10:13-11:15 p. m.	-----	-----	-----	Thunderstorm, rain and hail.	Tower blown down; wires wrecked.....	Do.
Ward, S. C.....	21	10:30 p. m.	-----	-----	5,000	Thunderstorm and wind.	Residences, tenant houses, outbuildings, and timber damaged.	Do.
New England.....	22	-----	-----	-----	-----	Snow, sleet and wind.	Thousands of dollars damage to telephone, telegraph, and electric systems; many trees destroyed; trains delayed.	Official, U. S. Weather Bureau, Boston Herald (Mass.).
Douglas, Ga.....	23	-----	-----	-----	-----	High wind.....	Lights and a few small houses damaged.....	Official, U. S. Weather Bureau.

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STORMS AND WEATHER WARNINGS

WASHINGTON FORECAST DISTRICT

On the morning of the 2d a disturbance of moderate intensity was over the St. Lawrence Valley and fresh to strong west and northwest winds were forecast for the New England coast and strong winds attaining moderate gale force at times occurred during the ensuing 24 hours.

On the evening of the 7th, with a disturbance over the upper St. Lawrence Valley, southwest storm warnings were ordered for the New England coast and strong winds and moderate gales occurred substantially as indicated.

On the evening of the 8th a tropical disturbance of slight intensity was near Santiago, Cuba. After moving slowly northward to about latitude 22° and longitude 76° by the evening of the 9th, its progress was checked by a high-pressure area that covered the Atlantic States. During the next 36 hours it advanced eastward to a position just west of Turks Island. Thus far its progress had been slow, but beginning with the morning of the 11th its rate of movement increased as it passed north-northeastward to a position about 200 miles southeast of Bermuda by the evening of the 13th. Its subsequent course was apparently northeastward. The disturbance was of small diameter and considerable intensity near the center. On the evening of the 10th the U. S. S. *Concord* in latitude 21° 35' N., and longitude 74° 15' W. passed near the storm center, reporting a pressure reading of 29.40 inches and a wind velocity of 82 miles per hour.

Beginning with the evening of the 8th advices concerning the location, probable intensity and direction of movement of this disturbance were issued twice daily.

In connection with a disturbance of increasing intensity which was over Nova Scotia on the evening of the 16th, storm warnings were ordered from Nantucket to Eastport and warnings of strong northwest winds off the coast were disseminated by radio. This offshore blow continued into the night of the 17th.

In the trough of the disturbance that was over Lake Michigan on the morning of the 21st, a secondary depression developed over the east Gulf States. During the next 24 hours it had advanced to the North Carolina coast with greatly increased intensity and by the morning

of the 24th it was over the lower St. Lawrence, having caused gales along the entire Atlantic seaboard, warnings of which were ordered well in advance.

On the morning of the 27th storm warnings were ordered for the Atlantic coast from Delaware Breakwater to Nantucket, but due to the decrease in intensity of the low-pressure area, which had moved from Ontario to western Quebec during the day, storm warnings were ordered down at 9.30 p. m.

On the morning of the 29th small-craft warnings were ordered from Norfolk to Nantucket in connection with a disturbance that was over New Jersey and moving northward. On the evening of that date, when the disturbance was over Massachusetts with increased intensity, north-west storm warnings were ordered from Block Island to Eastport. Strong winds occurred from Hatteras northward.

On the 16th warnings for light to heavy frosts were disseminated for portions of the South Atlantic and east Gulf States and were justified. On the 19th frosts occurred quite generally in the interior of the South Atlantic and east Gulf States and in Tennessee. Warnings were issued on that date for heavy to killing frosts on the following morning in the interior of North and South Carolina and for north and central Georgia, and these frosts occurred as indicated. Frost warnings were again distributed on the 24th and 25th for portions of the Atlantic and east Gulf States. On the 29th warnings of light to heavy frost were issued for extreme northern Florida and occurred as forecast.—R. H. Weightman.

CHICAGO FORECAST DISTRICT

The weather, as a whole, throughout the Chicago Forecast District during November was characterized by temperatures above the normal, especially on the Great Plains, but in some areas there was a deficiency in temperature, mainly in the extreme northern Rocky Mountain region and northeastern Minnesota. There was also a deficiency of precipitation which was almost general.

Storm warnings.—In consequence of the above-mentioned mild conditions, barometric disturbances crossing the district were, for the most part, not severe, but of